

Appl. No. 10/079,710  
Response date: December 8, 2005

**Amendments to the Claims:**

The listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Original) An optical source driver for driving an optical source, comprising:  
a current source series connected to the optical source;  
a DC-DC converter having a power input, a power output connected to an input of the optical source, and a control input;  
an operational amplifier having a first input connected between the optical source and the current source, a second input for receiving a first voltage, and an output connected to the control input of the DC-DC converter;  
a switch having a power input and having a power output connected to the input of the optical source; and  
a comparator having a first input connected between the optical source and the current source, a second input for receiving a second voltage, and an output connected to a control input of the switch.
2. (Original) The optical source driver of claim 1 wherein the current source receives a control signal to control the amount of current generated by the current source.
3. (Previously Presented) The optical source driver of claim 1 wherein a storage capacitor is connected to the output of the DC-DC converter.
4. (Original) The optical source driver of claim 1 wherein the first voltage is greater than a minimum voltage required to drive the current source.
5. (Original) The optical source driver of claim 4 wherein the second voltage is greater than a minimum voltage required to drive the current source but less than the first voltage.

Appl. No. 10/079,710

Response date: December 8, 2005

Claims 6-11 (Cancelled).

12. (Original) An optical source driver for driving an optical source, comprising:  
a current source series connected to the optical source;  
a primary control loop having a DC-DC converter and an operational amplifier, wherein the DC-DC converter has a power input, a power output connected to the input of the optical source, and a control input, and wherein the operational amplifier has a first input connected between the optical source and the current source, a second input for receiving a first voltage, and an output connected to the control input of the DC-DC converter, for controlling the output of the DC-DC converter in response to a control signal at the second input; and  
an override control loop having a power input, a power output connected to an input of the optical source, a switch between the power input and the power output, and a comparator having a first input connected between the optical source and the current source, having a second input, and having an output connected to a control input of the switch, for selectively connecting the power input to the power output when a signal between the optical source and the current source falls below a predetermined point.

13. (Original) The optical source driver of claim 12 wherein the first voltage is greater than a minimum voltage required to drive the current source.

14. (Original) The optical source driver of claim 12 wherein the predetermined point is greater than where the current driver ceases to operate.

Claims 15-20 (Cancelled).